REMARKS

Claim 1 has been amended to clarify the subject matter of the present invention and to more clearly define the refractive material with the limitations of claim 2 incorporated into claim 1.

Claim 2 has been cancelled and new claim 6 has been added.

The rejection of claims 1-5 under 35 U.S.C. 102(e) as being anticipated by Chuang (U.S. 2003/0161246) is respectfully traversed

The invention as defined in the amended claim 1 is a holographic system including a refractive material (218) for refracting a reference beam to generate a refracted reference beam. The refractive material is a ring-shaped prism for conically dispersing the refracted reference beam on the hologram storage medium. The ring-shaped prism is a truncated cone including an inner channel formed therein (see Fig. 3) with the inner channel having a first refractive surface to which the reference beam is provided and a second refractive surface from which the reference beam is outputted.

In contrast, Chuang discloses a holographic system for storing data in a hologram storage medium using a conical beam shaper (70) which is not a ring-shaped prism as specified in claim 1. Instead, the conical beam shaper of Chuang includes a conical mirror (120), a conical prism (130) or an inverted conical prism (140). It is believed that the conical beam shaper in Chuang will have the same problem as described in the background section of the present application.

Since Chuang does not disclose a ring-shaped prism as claimed in the present invention, it is respectfully submitted that the rejection under 35 USC 102(e) is therefore improper.

Moreover, in accordance with the present invention, the angle between the refracted reference beam and the modulated signal beam at the hologram storage medium should not be a right angle (90°) as explained on page 11, lines 10-14 of the specification and is preferably an angle of approximately 180° (see Fig. 4). Accordingly, an image reconstructed by the system according to the present invention has a high resolution. That is, the inventive holographic system has a reading reliability superior to that of the conventional holographic ROM system.

Since the angle between the reflected reference beam and the signal beam at the hologram storage medium in Chuang is at or very close to a right angle, gratings of the hologram storage medium are closely formed. Accordingly, the amount of energy absorbed in the hologram storage medium becomes large so that the quality of a reconstructed image tends to be poor, i.e., dark and unclear. Since Chuang's holographic system has an excessively narrow grating interval, the reading reliability of the reconstructed image is therefore undermined.

Accordingly, claim 1 is believed patentable over Chuang under 35 USC 102 or 35 USC 103.

Claims 3-5, directly or indirectly depend from claim 1 and are therefore allowable for the same reasons as indicated above with respect to claim 1 in addition to the distinct features recited therein.

CONCLUSION

Applicant believes that this is a full and complete response to the Office Action. For the reasons discussed above, applicant now respectfully submits that all of the claims are in condition for allowance. Accordingly, it is respectfully requested that the Examiner's rejections be withdrawn and that claims 1-6 be allowed as presented herein.

Should the Examiner believe a personal discussion might be helpful in advancing this case to allowance, the Examiner is invited to telephone the undersigned.

Reconsideration and allowance of claims 1-6 is respectfully solicited.

Respectfully submitted
For applicant,

Dated: July 6, 2005

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